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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,522	12/21/2000	Zion Koren	AGX-41	9990

7590 03/23/2004

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EXAMINER

FUQUA, SHAWNTINA T

ART UNIT PAPER NUMBER

3742

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/747,522

**Applicant(s)**

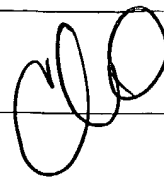
KOREN ET AL.

**Examiner**

Shawntina T. Fuqua

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-18 is/are rejected.
- 7) ☒ Claim(s) 4, 11 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/4/01 & 5/10/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because line 2 contains the implied phrase 'is disclosed', lines 6-7 contains the implied phrase "In accordance with the present invention".

Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walk et al (US6614005).

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Walk et al discloses an apparatus for heat treating semiconductor wafers comprising a chamber (22), a heating device (12, 14), a plurality of light energy sources comprising linear lamps horizontally oriented (16, column 5, lines 20-26; Figure 1), at least one arc lamp tuning device amongst light energy sources configured to change the irradiance distribution (15, column 5, lines 37-59; Figure 1) wherein tuning device heats outer edges of wafer (column 2, lines 57-67), and a controller configured to control amount of light energy emitted by tuning devices independently of linear lamps (column 5, lines 37-47).

5. Claims 5, 7-8, 12-14, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walk et al applied to claims 1-2, and 6 above, and further in view of Gronet et al (US5767486).

Walk et al discloses all of the recited subject matter except a light pipe for directing light energy onto wafer, a temperature sensing device in communication with a controller and light energy sources wherein controller is configured to control amount of light energy emitted by light energy sources, and a holder to rotate wafer. Gronet et al discloses a light pipe for directing light energy onto wafer (18; column 3, lines 37-42), a temperature sensing device in communication with a controller and light energy sources wherein controller is configured to control amount of light energy emitted by light energy sources (column 7, lines 27-37), and a holder to rotate wafer (column 7, lines 14-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the light pipe, temperature sensing device, and rotatable holder of Gronet et al in the apparatus of Walk et al because, a light pipe, temperature sensor, and rotatable holder allows the wafer to be heated more uniformly.

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6. Claims 3, 9-10, 15, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walk et al in view of Gronet et al as applied to claims 1, and 12 above, and further in view of Dobson et al (US4959245).

Walk et al in view of Gronet et al discloses all of the recited subject matter except a laser which emits p-polarized light having an angle of incidence of 40-85 degrees. Dobson et al discloses a laser which emits p-polarized light having an angle of incidence of 40-85 degrees (9; column 4, lines 7-23; column 5, lines 11-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the arc lamps of Walk et al with the laser of Dobson et al and included the light pipe, temperature sensor, and rotatable holder of Gronet et al because, a laser which emits p-polarized light having an angle of 40-85 degrees allows the surface of the semiconductor wafer to be modified to provide for an optimum temperature required to process the wafer.

#### ***Allowable Subject Matter***

7. Claims 4, 11, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

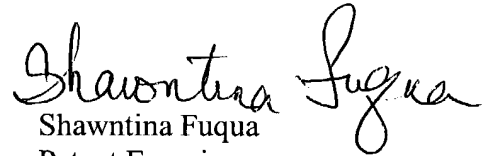
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawntina T. Fuqua whose telephone number is (703) 305-2581. The examiner can normally be reached on Monday-Friday 8-4:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on (703) 308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

stf  
March 20, 2004

  
Shawntina Fuqua  
Patent Examiner  
Art Unit 3742